

AD-A211 798

DTIC FILE COPY

2

SUMMARY FINAL REPORT
ON
CRITICAL SEA TEST SUPPORT



Science Applications International Corporation

DTIC
ELECTE
AUG 30 1989
S DCB D

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

89 8 29 0 50

2

SUMMARY FINAL REPORT
ON
CRITICAL SEA TEST SUPPORT

SAIC-88/1776

July 1988

SAIC

Science Applications International Corporation

Prepared by:

A. Eller

Undersea Science & Technology Division

DTIC
ELECTE
AUG 30 1989
S D

Prepared for:

Naval Ocean Research and Development Activity
Stennis Space Center, MS 39529-5004

Contract N00014-86-D-0137
D.O. 009

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. Agency Use Only (Leave blank).		2. Report Date. July 1988		3. Report Type and Dates Covered. Contract Report July 1988	
4. Title and Subtitle. Summary Final Report On Critical Sea Test Support				5. Funding Numbers. Program Element No. 63785N Project No. R02017 Task No. Accession No.	
6. Author(s). A. Eller					
7. Performing Organization Name(s) and Address(es). Undersea Science and Technology Division P.O. Box 1303, 1710 Goodridge Drive McLean, Virginia 22102				8. Performing Organization Report Number. CR N00014-86-D-0137	
9. Sponsoring/Monitoring Agency Name(s) and Address(es). ONR DET Code 125 SSC, MS 39529-5004				10. Sponsoring/Monitoring Agency Report Number.	
11. Supplementary Notes.					
12a. Distribution/Availability Statement. Approved for public release; Distribution is unlimited.				12b. Distribution Code.	
13. Abstract (Maximum 200 words).					
14. Subject Terms. ASW, ACTIVE, AVAMP				15. Number of Pages.	
				16. Price Code.	
17. Security Classification of Report. Unclassified		18. Security Classification of This Page. Unclassified		19. Security Classification of Abstract.	
20. Limitation of Abstract.					

SUMMARY FINAL REPORT
ON
CRITICAL SEA TEST SUPPORT

SAIC-88/1776

July 1988

Prepared by:
A. Eller
Undersea Science & Technology Division

Prepared for:
Naval Ocean Research and Development Activity
Stennis Space Center, MS 39529-5004

Contract N00014-86-D-0137
D.O. 009

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION
1710 Goodridge Drive
P.O. Box 1303
McLean, Virginia 22102
(703) 821-4300

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Availability for Special
A-1	



SAIC
Science Applications
International Corporation

The CST Support project is a two-year effort that addresses further development of the SAIC Active System Model (NOP Baseline¹) for at-sea modeling support. This report covers the first installment of this model development.

Efforts during this phase primarily have been directed to reconfiguring the graphics portion of the model in order to provide more flexible graphical display of the computed arrays and to allow graphical output of the environmental data bases. A second major effort has been directed at the development of algorithms for backing out bottom scattering strength coefficients.

The revised graphics developments include new graphics routines to present sound speed profiles, bathymetry, and transmission loss along selected radials, and to present plan views of bathymetry. Efforts were directed also at planning how to read in transmission loss and reverberation from other sources for plotting by the present Baseline graphics routines. The graphics improvements also were directed at providing greater flexibility to the user for color selection in plots.

1

The SAIC Active System Model: General Description of Physics, SAIC-87/1719, 19 September 1987.

Effort was directed at including a PE model within the NOP Baseline framework that exchanges input data with Baseline and produces PE-based transmission loss that can be plotted with Baseline graphics. Some effort was devoted also to passing external reverberation values through the Baseline reverberation graphics. Finally, efforts were expended to develop a routine to provide graphical displays of the reverberation-to-noise ratio and to provide the capability to use a vertical receiver.

Completion of these several developments is planned during the second phase of the overall project.